Sheldrake, Sean

From: BAYUK Dana <BAYUK.Dana@deq.state.or.us>

Sent: Tuesday, December 15, 2015 9:44 AM

To: Bob Wyatt; Burr, Myron (Myron.Burr@siltronic.com)

Cc: Patty Dost; Rachel Melissa (rmelissa@pearllegalgroup.com); Sarah Riddle; Gaekwad, Ilene M. (igaekwad@davisrothwell.com)

(igaekwad@davisrothwell.com); James Peale (jpeale@maulfoster.com) (jpeale@maulfoster.com); John Edwards; Ben Hung; Carl

Stivers: Jen Woronets: Sheldrake, Sean: 'Peterson, Lance': VROOMAN Gary L: JOHNSON Keith: LARSEN Henning

Subject: RE: PW-1Ub discussion

Importance: High

Good morning.

DEQ's November 20, 2015 e-mail (see below) directed NW Natural and Siltronic Corporation (Siltronic) to submit a plan for completing extraction well PW-1Ub by December 11, 2015. To date DEQ has not received the plan.

DEQ understands that NW Natural and Siltronic met on Thursday December 10, 2015 and extraction well PW-1Ub was discussed. DEQ further understands from an e-mail sent by Myron the same day, that the two companies may have agreed on the approach for drilling and installing PW-1Ub. That said, Myron's e-mail does not provide any information regarding the agreed-upon approach for completing PW-1Ub. Consequently, DEQ concludes the two companies have not submitted the plan as directed.

DEQ now directs NW Natural and Siltronic to submit the plan for completing extraction well PW-1Ub by the end of tomorrow (Wednesday December 16, 2015). If the plan DEQ approved on October 21, 2015 will be implemented, then an e-mail confirmation is an adequate reply (i.e., the DEQ-approved plan does not have to be resubmitted).

Please contact me with questions regarding this e-mail.

Dana

Mr. Dana Bayuk Cleanup Program Project Manager/Hydrogeologist Oregon Department of Environmental Quality Northwest Region 700 NE Multnomah Street, Suite 600 Portland, OR 97232-4100

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Please visit our website at http://www.oregon.gov/DEQ/

From: BAYUK Dana

Sent: Friday, November 20, 2015 1:55 PM

To: 'John Renda'

Cc: Bob Wyatt; Patty Dost; Rachel Melissa (rmelissa@pearllegalgroup.com); Sarah Riddle; Gaekwad, Ilene M. (igaekwad@davisrothwell.com) (igaekwad@davisrothwell.com); James Peale (jpeale@maulfoster.com) (jpeale@maulfoster.com); Burr, Myron (Myron.Burr@siltronic.com); John Edwards; Ben

Hung; Carl Stivers; Jen Woronets; 'Sheldrake, Sean'; 'Peterson, Lance'; VROOMAN Gary L; JOHNSON Keith; LARSEN Henning

Subject: RE: PW-1Ub discussion

Hello John.

I appreciate you summarizing our recent telephone discussions regarding the status of the PW-1U replacement well (PW-1Ub) and HC&C system operations. This e-mail further clarifies DEQ's position on both.

As indicated in your e-mail, the HC&C system is currently undergoing a long-term operational phase consistent with the Test Plan (see footnote). The current operational period began in May 2015. DEQ approved these operations through May 2016 by e-mail sent July 24, 2015.

For clarification, the overall objective of the current operational period is to collect data to evaluate the capacity of the HC&C system to achieve the data collection objectives identified in the Test Plan (as modified by DEQ's June 12, 1015 e-mail) during seasonal variations in groundwater and surface water conditions. The data collected during the current operational period will also be used to support ongoing work on the groundwater model. Once accepted by DEQ and EPA the groundwater model will be used to assess the "capture" of contaminated groundwater by the HC&C system. DEQ anticipates that model simulations and operations data together will be used in the development of compliance criteria for HC&C system operations.

Based on the information summarized above, your understanding regarding the status of capture and compliance criteria for operations of the HC&C system is correct. These criteria have not yet been developed.

Your e-mail also correctly indicates that DEQ was not compelling NW Natural to initiate work on PW-1Ub. As we discussed, there has been no need for DEQ to take this step as NW Natural recognized the declining performance of PW-1U and proactively developed and presented a replacement plan to DEQ. Furthermore, NW Natural provided the plan within a timeframe to achieve HC&C system data collection objectives for the current operational period.

DEQ approved NW Natural's plan by e-mail sent October 21, 2015. DEQ's approval presumed that the scope of work had been discussed with and accepted by Siltronic. In other words, subsequent to our approval DEQ presumed the work on PW-1Ub would proceed once the subcontractor's schedule was confirmed. NW Natural notified DEQ of the start date for initiating work on PW-1Ub (i.e., November 23, 2015) by e-mail sent November 6, 2015.

On November 13 and November 16, 2015, DEQ received letters from NW Natural and Siltronic respectively. The letters present DEQ with each company's disagreements arising out of the plan for drilling PW-1Ub. Based on our discussions and DEQ's review of the companies' letters, DEQ now understands that the disagreements could delay work on PW-1Ub.

Given the declining performance of extraction well PW-1U, DEQ concludes that if PW-1Ub is not completed and made operational in a timely manner there is the potential for the data collection objectives of the current operations to not be met. Under this scenario both companies are at risk of being out of compliance with the Joint Order.

As you and I discussed, there are technical approaches available for completing the work that meet the needs of NW Natural and that consider Siltronic's concerns. Consequently, DEQ directs the two companies to submit a plan to complete extraction well PW-1Ub by December 11, 2015. The plan should emphasize changes made to the drilling and installation plan DEQ previously approved and include a schedule for performing the work.

Please feel free to contact me with questions regarding this e-mail.

Dana

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Footnote. Anchor QEA, LLC, 2013, "Final Groundwater Source Control Extraction System Test Plan - NW Natural Gasco Site," November (received November 13, 2013), a document prepared for NW Natural.

From: John Renda [mailto:jrenda@anchorgea.com] Sent: Tuesday, November 17, 2015 5:15 PM

To: BAYUK Dana

Cc: gary.l.vrooman@doj.state.or.us; JOHNSON Keith; Bob Wyatt; Patty Dost; Rachel Melissa (rmelissa@pearllegalgroup.com); Sarah Riddle; Gaekwad, Ilene M. (igaekwad@davisrothwell.com) (igaekwad@davisrothwell.com); James Peale (jpeale@maulfoster.com) (jpeale@maulfoster.com); Burr, Myron

(Myron.Burr@siltronic.com); John Edwards; Ben Hung; Carl Stivers; Jen Woronets

Subject: PW-1Ub discussion

Dana -

Thank you for your time to discuss current operational status of PW-1U and the planned installation of PW-1Ub.

We discussed, as shown in the September HC&C figures submitted to DEQ on October 30, 2015, that PW-1U is no longer meeting the data collection objectives outlined in the Groundwater Source Control Extraction System Test Plan (Test Plan). Figure 4.49 shows that a groundwater gradient reversal is no longer

continuously maintained at monitoring well WS-8-59 and Figure 8.1 shows that production of PW-1U has declined in September from 7 gpm at the beginning of September to 5 gpm at the end of September. Current PW-1U production continues to decline and it is currently maintaining a pumping rate of approximately 3 gpm. NW Natural is concerned that the system is no longer achieving gradient reversal at the upstream end of the HC&C system.

Based on our conversation, I understand that DEQ sees the current operation of the HC&C system as a "commissioning phase" of operation and, as such, there is no formal evaluation of capture and no measure of "compliance". Given the current operational status, we operate the system to meet the data collection objectives outlined in the Test Plan, which is to collect data to assess the operation and hydraulic influent of the HC&C system under seasonally changing groundwater and river stage conditions. Delays in installation of PW-1Ub compromises our ability to meet this long term objective.

DEQ is not compelling NW Natural to meet a specific schedule or deadline since NW Natural has been moving forward in a timely manner with the plan to install PW-1Ub in the November timeframe. The longer the delay, the more it could be a problem in the future.

At the completion of the "commissioning phase" (long term testing phase), the data collection objectives will be further defined as far as how they are used to define "capture", so currently, a formal evaluation of capture has not been established.

Please confirm that this email accurately summarizes DEQ's position.

John J. Renda, RG

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